

Docket No. 70207/48,913-C

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

**APPLICANT:** Peter C. Meltzer, et al.  
**SERIAL NO.** 09/975,586 **EXAMINER:** C. Aulakh  
**FILED:** October 11, 2002 **GROUP:** 1625  
**FOR:** BOAT TROPANES

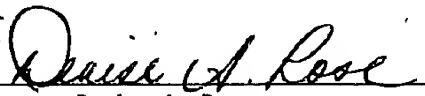
Commissioner for Patents  
P.O. Box 1450  
Arlington, VA 22313-1450

Sir:

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**Certificate of Mailing**

I hereby certify that this correspondence is, on the date shown below, being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to Commissioner of Patents, P.O. Box 1450, Arlington, VA 22313-1450 on July 22, 2003

  
Denise A. Rose

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**DECLARATION UNDER 37 C.F.R. 1.132**

I, Peter C. Meltzer, declare that:

1. I hold a Ph.D. in Organic Chemistry from the University of the Witwatersrand, S. Africa. After obtaining my PhD, I was awarded a Post-doctoral fellowship at Massachusetts Institute of Technology.
2. I am one of the inventors of the above-identified U.S. Patent Application Serial Number 09/975,586.

Meltzer, et al.  
U.S.S.N. 09/975,586  
Page 2

3. I have over 13 years experience in research and development of synthetic tropanes and their use in connection with diagnosis and treatment of conditions involving the dopamine transporter. My current curriculum vitae is attached as Appendix A.

4. I understand that the Examiner has rejected claims 22-27 over Clarke U.S. Patent No. 3,813,404. The examiner states that

The disclosed compounds of Clarke (see examples 1-14 and claims 1-8) differ from the instant compounds in having the instant R2 group as a 3-beta isomer instead of a 3-alpha isomer. However, Clark teaches that any stereochemical arrangement of the nucleus and substituent groups is contemplated (see col. 1, lines 48-50). Therefore, it would have been obvious to one skilled in the art to prepare the instant compounds having R2 group as 3-alpha isomer by modifying 3-beta isomer since Clarke [sic] teaches this interchangeability for the substituents as mentioned above.

5. In my opinion, the examiner's conclusion that it would have been obvious "to prepare the instant compounds having R2 group as 3-alpha isomer by modifying 3-beta isomer" of Clarke is erroneous. Based on my knowledge and experience in the art, the presently claimed 3-alpha compounds cannot be prepared by using the Grignard reactions used by Clarke.

6. Initially, it was not obvious to us that we should try to prepare the 3-alpha boat tropanes. Only after we had prepared the boat tropanes through a new synthesis route did we unexpectedly discover that they were more DAT selective than the corresponding chair (3-beta) compounds. We were quite surprised at the potency and selectivity of the 3-alpha tropanes.

Meltzer, et al.  
U.S.S.N. 09/975,586  
Page 3

I declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements are punishable by fine or imprisonment, or both, under §1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application of any patent issuing therein.

Date: 7/22/03

Peter C. Meltzer  
Peter C. Meltzer

Peter C. Meltzer, President of Organix Inc.

## APPENDIX A

### BIOGRAPHICAL SKETCH

#### EDUCATION

Institution	Degree	Year Conferred	Field of Study
Univ. of the Witwatersrand, S. Afr.	BSc (Hons.)	1972	Chemistry
Massachusetts Institute of Technology	Post-doc	1977	Organic Chemistry
Univ. of the Witwatersrand, S. Afr.	PhD	1976	Organic Chemistry

#### Research and Professional Experience

1971-1976 Lecturer and Teaching Assistant, Univ. of the Witwatersrand.

1976-1977 Research Associate, Univ. of the Witwatersrand, Johannesburg.

1977-1978 Research Associate, Massachusetts Institute of Technology.

1978-1983 Group Leader, Senior Chemist, Research Associate, SISA .

1983-1986 Vice-President of Research and Development, Director of Chemistry, SISA Inc., Cambridge, Massachusetts

1986- President and Co-founder, Organix Inc., a Massachusetts Research and Development Company.

#### Awards

1968-1971 Johannesburg City Council Scholarship.

1972 Senior Bursar of the University. of the Witwatersrand.

1972 South African. Council for Scientific and Industrial Research Scholarship.

1975 University. of the Witwatersrand Senate Research Grant.

#### Professional Activities

1977- Member, American Chemical Society.

1981-1983 Associate Editor, The Nucleus, newsletter of the Northeastern Section of the American Chemical Society (NEACS).

1983 Chairman-Elect, Medicinal Chemistry Group, NEACS.

1983 Chairman, ACS Symposium: "The Pharmaceutical Industry to the Turn of the Century", Boston College, Newton, MA.

1984 Chairman, ACS Symposium: "Chemistry and Immunology," Arthur D. Little Inc., Cambridge MA.

1984,1985 Chairman, Medicinal Chemistry Group, NEACS.

1987/9 Member, Nominating Committee, NEACS

1990 Member, Long Range Planning Committee, NEACS

1991- Member, Society for Neuroscience.

1993- Member, College on Problems of Drug Dependence

**Consultant**

NIH, Med. Chem. Study Section (AHR)

NICHD, Study Section (AHR)

Boston Life Sciences, Inc.

**Citations**

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**Publications**

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GO TO THE TOP OF THIS PAGE